

AMENDMENTS TO THE CLAIMS

This listing of claims replaces all prior versions of claims in the application.

1. (Currently Amended): A method of producing a sintered body of a thermoelectric conversion material, comprising:

mixing microparticles of void forming agent having a particle diameter of 1 μm or less or a fibrous substance having a diameter of 1 μm or less that serves as a void-forming agent with the thermoelectric conversion material powder, thereby obtaining a mixture;

forming the mixture into a shaped body;

heating the shaped body to densify ~~solid material~~ a solid part formed by sintering in an atmosphere where the void forming agent is not substantially gasified ~~from the shaped and is maintained without gasification in a sintered body~~; and then

~~sintering the shaped heating the sintered~~ body at a temperature where the void-forming agent is gasified and ~~removed from the shaped a gas generated is diffused in the solid part and is dissipated from the sintered body~~, thereby producing the sintered body of the thermoelectric conversion material in which continuous electrical conduction paths ~~composed consisted of~~ independent closed pores corresponding to a size of the microparticles or fibrous substance are provided inside the sintered body.

2-5. (Cancelled).

6. (Currently Amended): A method of producing a sintered body of a thermoelectric conversion material, comprising:

mixing microparticles of void forming agent having a particle diameter of 1 μm or less or a fibrous substance having a diameter of 1 μm or less that serves as a void-forming agent with the thermoelectric conversion material powder, thereby obtaining a mixture; forming the mixture into a shaped body while heating to densify solid material in the shaped body at a temperature where the void-forming agent is not substantially gasified; and then sintering the shaped body at a temperature where the void-forming agent is gasified and ~~removed from the shaped~~ a gas generated is diffused in the solid part and is dissipated from the sintered body, thereby producing the sintered body of the thermoelectric conversion material in which continuous electrical conduction paths ~~composed~~ consisted of independent closed pores corresponding to a size of the microparticles or fibrous substance are provided inside the sintered body.

7-13. (Cancelled).

14. (Previously Presented): The method of producing a thermoelectric conversion material according to claim 1, wherein the distance between nearest voids composed of the independent closed pores or the independent closed air tubes is 5 μm or less, and the density of the number of voids is $1 \times 10^{10}/\text{cm}^3$ or more.

15. (Previously Presented): The method of producing a thermoelectric conversion material according to claim 6, wherein the distance between nearest voids composed of the independent

closed pores or the independent closed air tubes is 5 μm or less, and the density of the number of voids is $1 \times 10^{10}/\text{cm}^3$ or more.

16. (Currently Amended): A method of producing a sintered body of a thermoelectric conversion material, comprising:

mixing microparticles of void forming agent having a particle diameter of 1 μm or less or a fibrous substance having a diameter of 1 μm or less that serves as a void-forming agent with the thermoelectric conversion material powder, thereby obtaining a mixture;

forming the mixture into a shaped body;

heating the shaped body to densify ~~solid material~~ a solid part formed by sintering in an atmosphere where the void forming agent is not substantially gasified ~~from the shaped~~ and is maintained without gasification in a sintered body; and then

~~sintering the shaped~~ heating the sintered body in an oxidizing atmosphere where the void-forming agent is oxidized and ~~removed from the shaped~~ a gas generated is diffused in the solid part and is dissipated from the sintered body, thereby producing the sintered body of the thermoelectric conversion material in which continuous electrical conduction paths ~~composed~~ consisted of independent closed pores corresponding to a size of the microparticles or fibrous substance are provided inside the sintered body.

17. (Currently Amended): A method of producing a sintered body of a thermoelectric conversion material, comprising:

mixing microparticles of void forming agent having a particle diameter of 1 μm or less or a fibrous substance having a diameter of 1 μm or less that serves as a void-forming agent with the thermoelectric conversion material powder, thereby obtaining a mixture;

forming the mixture into a shaped body while heating to densify solid material in the shaped body at a temperature where the void-forming agent is not substantially gasified; and then

sintering the shaped body in an oxidizing atmosphere where the void-forming agent is oxidized and ~~removed from the shaped~~ a gas generated is diffused in the solid part and is dissipated from the sintered body, thereby producing the sintered body of the thermoelectric conversion material in which continuous electrical conduction paths ~~composed~~ consisted of independent closed pores corresponding to a size of the microparticles or fibrous substance are provided inside the sintered body.